

**IN THE UNITED STATES PATENT & TRADEMARK OFFICE**

IN RE APPLICATION OF: DROHMANN et al.                      GROUP: 1724  
SERIAL NO: 10/398,179                      EXAMINER: R.J. Popovics  
FILED: 04/02/2003  
FOR: „Use of Polymers as Filter Aids and/or Stabilizers”

**SUPPLEMENTAL DECLARATION UNDER 37 C.F.R. 1.132**

COMMISSIONER FOR PATENTS

I, Dr. rer. nat. Marianna Pierobon, a citizen of Italy and residing at Sauerbruch st 26, 67063 Ludwigshafen, Federal Republic of Germany depose and state that:

1. I am a graduate of the University of Bonn, Federal Republic of Germany, and received my Ph.D. degree in chemistry in the year 2002.
2. I have been employed by BASF Aktiengesellschaft, D-67056 Ludwigshafen, Germany, for four years as a chemist in the field of polymer research.
3. The following experiments were carried out by me or under my direct supervision and control.

The compound of polystyrene and polyvinylpolypyrrolidone, designated as compound D in the Declaration dated October 18, 2006, was obtained by a process comprising extrusion and subsequent milling. This process is described in the following.

The extruder that was used is a corotating, closely intermeshing twin-screw extruder, provided with a pelletizing die at the extruder outlet.

The polystyrene was introduced in the first section of the twin screw extruder. The crosslinked polyvinylpolypyrrolidone was introduced into the polystyrene, which under the conditions in the extruder was molten, in a second section. The components were then intimately mixed so that the crosslinked polyvinylpolypyrrolidone, solid under the processing conditions, was homogeneously dispersed within the molten polystyrene. The composition was then discharged from the extruder, cooled and pelletized.

The extrudate pellets were comminuted by a cold-grinding process in a counterrotating pinned-disk mill under cooling with liquid nitrogen. The obtained powder had a mean particle size of  $D(v, 0.5) = 45 \mu\text{m}$ .


The particle size was measured by means of a Malvern Insitec laser diffraction spectrometer, using dry dispersion of the product and a pressure of 0.3 MPa. The mean particle size thus obtained is the average particle size related to the cumulative weight distribution.

4. I further declare that all statements made herein of my own knowledge are true and that statements made on information or belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

5. Further deponent saith not.

D-67056 Ludwigshafen, Germany

Place



Signature

7.12.2006

Date